Biodiversity Conservation & Economic Growth (BCEG) Project

Non-Timber Natural Resources and National Parks

Part 3

Assessment of
Economic and Management Options

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Acronyms and Abbreviations

ARD	Associates in Rural Development, Inc.
BAS	Bulgarian Academy of Sciences
BCEG	Biodiversity Conservation and Economic Growth Project
EEC	European Economic Council
GEF	Global Environment Facility (note the acronym "GEF" is also generically in Bulgaria for the USAID/GEF Biodiversity project)
LLC	Limited Liability Company
MBR	Maya Biosphere Reserve
MOAF	Ministry of Agriculture and Forests
MOEW	Ministry of Environment and Waters
MOU	Memorandum of Understanding
MUZ	Multiple-Use Zone
NGO	Non-Governmental Organization
NNPS	National Nature Protection Service (of MOEW)
NP	National Park
NTNR	Non-Timber Natural Resources
PMU	Project Management Unit
SME	Small and Medium Enterprises
USAID	United States Agency for International Development

Preface

The Biodiversity Conservation and Economic Growth (BCEG) Project is funded by the United States Agency for International Development, (USAID), as part of its strategic support to the Republic of Bulgaria. The Project is sponsored by USAID in conjunction with the Government of Bulgaria – the Ministry of Environment and Waters (MOEW). The Project is governed by a Memorandum of Understanding (MOU) between the two governments, and its implementation covers the period: May 2000 – October 2002.

This Project is a logical evolution of earlier USAID assistance to biodiversity conservation in the country. It follows some 10 years of assessment, technical assistance and financing of Bulgaria's biodiversity conservation strategic development, new protected areas legislation, and new national park institutions. The Project is designed to capitalize on the achievements of the Bulgaria Global Environmental Facility (GEF) Biodiversity Project (implemented during the period June 1995-April 2000), and builds on lessons learned.

The BCEG Project addresses six specific contract themes known as tasks or "contract result packages". The BCEG Project includes the finalization and implementation of two national park management plans, and the development of a new management plan for Rila Monastery Nature Park. It assists in the development of financial mechanisms and strategies to ensure the solvency of national parks. The Project pilots economic growth activities with select target communities around two Bulgarian national parks. And it continues to build on the principles of strong public information and awareness as stepping stones for informed public engagement and promotion of biodiversity conservation and protected area management activities.

This Project is issued as a Task Order 01 (Contract Number LAG-I-00-99-00013-00) under the USAID Global Biodiversity and Forestry Indefinite Quantities Contract (IQC); and is implemented on behalf of USAID by Associates in Rural Development, (ARD) Inc., of Burlington, Vermont, USA.

The Project is implemented through a Project Management Unit (PMU) based in Sofia, and includes a Team Leader, three Bulgarian technical specialists, and support staff.

Project activities are coordinated through two mechanisms –

(a) Project Coordination Group – serves as a steering committee for Project planning and monitors implementation. This consists of the National Nature Protection Service of the MOEW, and national park directors, the PMU and USAID.
(b) Project Counterpart Team – PMU staff working with MOEW/NNPS counterparts

The Project is largely implemented through the Directorates for Rila and Central Balkan National Parks. Additional technical assistance is provided by Bulgarian and international consultants, and is based on specific terms of reference.

1. Executive Summary

Considerable local and national economic activity relies upon non-timber renewable natural resources (NTNRs) coming from the National Parks system of Bulgaria. The harvest of NTNRs from national parks, however, including berries (particularly blueberries – (*Vaccinium sp.*), wild mushrooms (*macromycetes*), and a range of wild herbs and medicinal plants can cause site damage, impacts to local habitats and can threaten important animal and plant populations. The last 10 years has witnessed a significant increase in the unregulated collection of many NTNRs from many of the country's wild habitats. Central Balkan and Rila National Parks are presently working to quantify and qualify the productivity of their high mountain ecosystems, and the impacts caused by personal and commercial harvesting. No matter the diagnosis of these studies, an improved regulatory system is required. In addition, the Government of Bulgaria is interested in using NTNRs as a base for economic development in the communities that surround the national parks.

This report is the product of a 14-day consultancy in Bulgaria. A team comprised of Biodiversity Conservation and Economic Growth (BCEG) Project staff, consultants, and national park staff examined the issues in the supply chain for one of the most significant non-timber natural resources collected commercially from the national parks (*vaccinium sp.)*. We focused on the opportunities for economic development and regulatory control of non-timber natural resources in Bulgaria's National Parks – particularly two pilot areas in Rila and Central Balkan National Parks. There are two major conclusions from this consultancy.

- We recommend two regulatory responses to improve NTNR management in the National Parks:
  - Improve current permitting and enforcement procedures;
  - Develop a harvest concession system for commercial NTNRs.

- The opportunities for enhancing economic activities local to the parks using the natural resource base are limited by the existence of broad competition and excess processing capacity (cleaning, sorting, freezing, and canning if demanded) within Bulgaria. Interventions to improve the economic situation of local collectors of natural resources should focus on:
  - Ensuring the ecological sustainability of the resource base;
  - Creating favorable conditions for local investment in processing and organic certification of NTNRs.

The BCEG Project team and this consultant believe that it is necessary and reasonable to proceed with the design of necessary improvements for permitting and enforcement procedures. These should be implemented before the onset of another collection season. Once in place, this revised and refined system will serve to protect the resource and allow benefits to continue to flow to local communities. At the same time, we recommend developing a concession system that will complement the permit system and may encourage local investment and possibly capitalize on organic markets.

This report is the third in a series of reports addressing sustainable resource harvesting of wild, park products. Part 1 is a situation analysis of two National Park pilot areas, and Part 2 is an assessment of blueberry populations in these two pilot areas.

2. Context and Supply Chain

Background

Bulgarian protected areas are suspected of providing substantial commercial amounts of non-timber natural resources destined, largely, for export markets. Two of these protected areas - national parks - Rila National Park (81,046 hectares) and Central Balkan National Park (71,669.5 hectares) are characterized by significant, seasonal extraction of non-timber natural resources for personal and commercial uses. Both parks harbor significant biodiversity within a landscape of high mountain meadows, alpine and sub-alpine environments, and mixed deciduous/coniferous forests. There are distinct areas of both Parks that contain substantial populations of edible or fruit-bearing plants (e.g. blueberries, herbs) medicinal plant parts, and mushrooms.

Both National Parks are managed under the regimes and norms of protected area categorization (IUCN Category II) that favors conservation, recreation, scientific study, and education. Limited renewable resource extraction is provided for in both Parks under the first national park management plans for these territories (2001-2010). These plans were recently approved by the Council of Ministers of the Bulgarian Government (June 28, 2001), and are now considered legal instruments of the Protected Areas Act (November 1998). Provision for non-timber natural resource harvesting (within the country) is also addressed by the Bulgarian Medicinal Plants Act (March 2000). Both pieces of legislation are the result of priority conservation policy identified in the country's first National Biological Diversity Conservation Strategy (produced in 1994, and adopted by Parliament in 1998).

Both Rila and Central Balkan National Parks are managed as state property, with dual purposes: (a) the conservation of environments, systems, species and habitats; (b) development of conservation opportunities that provide benefits to local communities (communities that are physically located in close proximity to park boundaries).

The BCEG Project, and its counterpart in the Ministry of Environment and Waters and Bulgarian National Parks, are examining ways in which real economic benefits can be derived from activities that favor the conservation of park resources and allow sustainable access and use. Towards this end, the Project and Park Directorates have identified two pilot areas – territories in which the models of sustainable, non-timber natural resource harvesting can be tested and developed.

The two pilot areas are the subject of a situation analysis, conducted by the BCEG Project and national parks staff in the May-June 2001 period. A description of the pilot areas (in detail) and the results of the situation analysis form the first part of this report. Both pilot area territories are approximately the same size (12-14,000 hectares) and have several communities/villages and small municipalities, falling within each pilot area's coverage. Both pilot areas harbor significant non-timber natural resources identified in the early stages of management planning, but not yet quantified.

Activities related to the sustainable non-timber natural resources management are based on a strategy and approach of collaborative management. Thus, national park staff, (supervised by the BCEG Project Eco-enterprise specialist in conjunction with her Park counterparts) have

initiated discussions with collectors, buyers, processors, and local government associated with resources collected from these pilot areas. These discussions have allowed the Park and BCEG Project to develop strong local relationships focused on matters related to NTNR access, collection, control, management, etc. Collections of local interested parties are beginning to coalesce into groups, which may serve as the vehicle for future, targeted national park activities supported by the BCEG Project.

Context

The collection of these NTNRs is traditional among many Bulgarians, and especially the communities neighboring the parks (*People and National Parks, Attitudes, Practices and Prospects in Bulgaria* – GEF Biodiversity Project, April 2000). The level of collection, however, is believed to have both increased significantly and become more poorly regulated with the Bulgarian transition from a centralized economy. This is due in part to elevated unemployment as well as significant changes of responsibility and control among national institutional natural resources management bodies. The increase can also be attributed to increased number of players and access to international markets for these products.

The ecological impacts of collection may inhibit regeneration of the harvested species as well as cause damage to other species within protected mountain ecosystems. The BCEG Project has completed a resource assessment (Part 2 of this report) that describes the context and impacts of collection activities in both Park pilot areas.

Plants, berries, and mushrooms collected from National Parks enter a supply chain not uncommon to most parts of the world. Independent individuals and families (collectors) enter parks throughout the summer months to collect. This collection is conducted largely under legal provisions for "personal use" (Medicinal Plants Act, Article 21), however the ultimate destination for the collected resources is often commercial markets. The situation analysis and observations made during field visits in August 2001 indicate that hundreds of collectors enter the national parks every day during harvest season.

Collectors sell their harvest to buyers at designated areas outside of parks as often as each day. Buyers of NTNRs often assist collectors with transportation to collection areas and to buying sites for a fee. In the case of blueberries and raspberries, the buyers consolidate each day's harvest in flats and/or plastic containers, and transport them to processing facilities by refrigerated truck. Multiple buyers operate in each region; and not all buyers are registered.

Processing facilities receive trucks on a daily basis and generally wash and freeze the product. Some facilities are equipped to further process the product into canned goods and jams. Processing facilities do not specialize in one product, since harvest seasons are relatively short and volumes relatively small or unpredictable. From here, the product is transported to either local consumers or exported. In the case of blueberries, most production is exported. Exporters operating in Sofia specialize in the sale of the products, and may own or have long-term relationships with processors.

This supply chain, which carries the product from the park to the consumer, is composed of many competitors. We observe that:

- There is an abundance of independent collectors;
- Multiple buyers can be found at all locations;
- A substantial industrial base is available for processing; and,
- A number of exporters operate in the market.

Table 1 provides a summary of price figures collected during interviews with individuals and firms throughout the supply chain. We did not collect a complete accounting of costs, but processors most likely incur the greatest costs in the form of transportation (1.2 leva/km for a 20 ton truck, 2.5 leva/km for a 20 ton refrigerated truck) and (factory) freezing (0.38 – 0.42 leva/kg).

TABLE 1

WILD BLUEBERRY SUPPLY CHAIN
Revenue analysis

	Sale Price (leva*)	***Revenue Margin (leva)***
Collector	1.8 – 2.5	1.8 – 2.5
Buyer	1.9 – 2.7	0.1 - 0.2
Processor	2.5 – unknown	0.5 - unknown
Exporter	2.8 – 5.0	0.3 - unknown

* Bulgarian *lev* (plural *leva*) is pegged to the German mark, which at the time of writing was equivalent to 0.45 dollars.

BCEG is attempting to quantify commercial volumes of NTNRs in Bulgaria and the amounts sourced from National Parks. We estimate at present that Bulgaria's total production of blueberries is 700 tons per year, three to seven thousand tons of mushrooms, 12 thousand tons of herbs (pers com, Bioprograma), and that approximately 300,000 individuals collect NTNRs in the country (pers com, Dionisiev). We also estimate that eighty percent of Bulgaria's commercial blueberry harvest may come from national parks, 30 percent of mushrooms and raspberries, and a very small percentage of all other herbs (pers com, Gussev). Each National Park has embarked on a program of NTNR resource assessment for species of commercial value found within their boundaries. This is part of each Park's three-year action plan, and a requirement under the Medicinal Plants Act. Some of this information should be forthcoming from the BCEG resource (blueberry- *vaccinium sp.* Assessment), and with the assistance of the MOEW/NNPS.

We noted an interesting nascent market opportunity for NTNRs sourced from Bulgaria's National Parks – *organic certification*. This topic requires further study but organic products command a price premium in Western Europe of 20% to 500% (pers com, Andanova, Tsurkanu, Nestorov, Mondeshka, Ivanov, Simeonova) while it is believed that the majority of production would presently only attain the lower end of this range given quality considerations (Andanova). Assuming that a park concession could produce 50 – 200 metric tons of blueberries per year and that a 20% premium is attained, the value of certification for this NTNR might range between 28,000 BG leva and 200,000 BG leva. In order to capture this value, changes in the supply chain would be required to control for source verification and to meet handling requirements.

3. Economic Development Interventions

Our study focused on the potential interventions for improving the local economic development stimulus of NTNR production in National Parks, and the means to ensure the ecological sustainability of these activities. We assessed four interventions, and recommend that a new model for NTNR management in the National Parks should draw primarily from two of these.

Model 1: Stabilize Access to and Productivity of NTNRs

Within the guidelines and objectives of the Management Plans, both National Parks already provide a significant benefit to local communities. Both territories are a source of harvestable commercial products. In this way, management of the national parks is a subsidy to local communities, as well as protecting Bulgaria's natural heritage. ***Direct and measurable economic benefits accrue to local communities when Parks ensure the long-term sustainability of, and accessibility to, commercial NTNRs.***

Stabilizing access to and productivity of NTNRs requires a management system that considers the natural ecology of the harvested plants and fungi, and the equitable distribution of the economic benefits accrued from their collection. A potential model management system is that used for hunting and fishing licenses in the United States.

Box 1: Hunting and Fishing Permitting

Hunting and fishing licenses are generally distributed to residents local to the areas where hunting and fishing activities occur. In many cases, these areas are rural and hunting and fishing contribute to local economic welfare. The issuance of licenses therefore must control for over-harvest and subsequent damage to natural populations of fish and game, and at the same time provide sufficient access to meet local needs. Each year a regional commission assesses the health of the natural population of fish or game and determines a sustainable harvest level for that population. Permits are then issued commensurate with that level of harvest. In the case of fishing, the commission issues permits (via local merchants) to individuals for a daily catch limit for a finite period of days. In the case of hunting, the commission issues tags for each animal an individual is permitted to take. The permit system requires that individuals present a permit or tag to commission officials if they are in possession of fish or game, or are in the process fishing or hunting. Officials primarily spot check hunting and fishing areas, and issue fines to individuals without permits[1].

We considered the implementation of a new permit system similar to the hunting and fishing model and found its objectives and implementation requirements to be analogous. A specific amount of harvest from a natural population must be regulated but ample access by local collectors is desirable. A revised and simple permit system, where all collection is permitted, and designated by area and volume could help to ensure the ecological productivity of NTNRs in Bulgaria's National Parks. The system also would maintain the local economic benefits generated by the parks for local communities. In the following section of the report, we recommend a permit system that is straightforward to implement and not likely to increase

[1] Fines are designed such that: *benefit of non-compliance < probability of being caught x fine*

park management costs; ample staffing exists and infrastructure is in place or can be readily installed.

Model 2: Cooperatives/Associations of local collectors/buyers

Cooperatives and associations are typically formed by a number of independent individuals who identify a benefit to be derived from collective action or organization. Internationally, cooperatives and associations have a wide variety of legal forms, but the basic functions include: vertical integration within the supply chain; bargaining power in price negotiations; and, an organizational and legal mechanism to pool capital to be used for investments that benefit the group (for example, a group of collectors could pool investment to purchase vehicles to transport collectors and their harvests rather than paying others for this service). Cooperatives require internal governance, accounting of collective financial resources, and norms of membership. Many rural people that have a history of community decision-making easily meet these requirements, but the process of forming a lasting entity requires a very strong commitment on behalf of the members.

We examined the potential for cooperatives and associations of collectors of NTNRs in the National Parks. While we see some opportunities, the benefits may be limited, and the commitment necessary to successfully mount a cooperative must come from within communities and may not be readily substituted with external public-sector intervention. We noted several constraints.

First, mounting an effort to eliminate middlemen (e.g. buyers, transporters) can allow collectors to capture profits that normally accrue to others, but in order for this to work in reality, the cooperative must be able to perform the functions of middlemen at a competitive level. In the experience of this consultant, efforts by rural collectors of NTNRs to eliminate middlemen have been mounted with optimistic expectations but ended with disappointing results. This is largely attributable to the lack of appreciation for the fact that middlemen perform business functions that are not easily replicated by collectors with little or no experience in those roles.

S**econd**, the gains from additional bargaining power may be limited. There is competition among buyers such that prices are probably not largely outside of normal efficient bounds. Furthermore, the ultimate consumers of berries, herbs, medicinal plants, and mushrooms have a wide range of sources from which to choose. Berry markets select from a range of low cost Eastern European sources. Those that purchase mushrooms enjoy very low prices from Chinese sources. The market will strictly limit the amount price can be increased for collectors.

Third, we noted that collectors maintain virtually no collective investments such as vehicles. There are several explanations why collective investments are not warranted. The most important of these reasons is the short season of collection (in the case of berries, approximately one month). Most members of the supply chain that maintain capital investments afford to do so by working with a wide variety of products, most of which have far larger volumes than those sourced from Bulgaria's National Parks (e.g. agricultural products). We treat this topic in more detail in the next section.

Model 3: Engage in Small and Medium Enterprise Development

Within the NTNR economy in Bulgaria there exist a variety of firms to process and export products collected in National Parks. As a result, opportunities for collectors to process berries, herbs, medicinal plants, and mushrooms may be limited. Instead, products are transported to large-scale processing facilities in other parts of Bulgaria. A common reaction to this type of situation is to search for means to perform more value-added activities closer to the resource base and thereby benefit communities whose livelihood is presently limited to the collection of the resource.

A current trend in development projects is technical and financial assistance to small and medium enterprises (SMEs). As an economic strategy, SMEs are considered agile vehicles for local entrepreneurs to diversify the economy while providing local employment. In the context of conservation, enterprise development has been used widely as a tool to stimulate local economic development and build local constituencies for conservation. The assumption behind SMEs as a development tool is that with limited public-sector assistance, these businesses can be created and mature into competitive independent entities.

The experience to date of small enterprises in the context of conservation initiatives has been poor (for example, see Appendix 2: Case Study of the Maya Biosphere Reserve). This consultant has observed several factors that repeatedly hobble efforts to create self-sufficient businesses in the context of conservation projects.

- **First**, established competition often precludes new players from successfully entering the market. An excellent example is found in the case of natural latex production in the Amazon basin. Local latex collectors (rubber-tapers) have long sought opportunities to gain resource management rights in forests rich in natural latex. In the mid-1990s, the Government of Brazil created a series of large-scale "extractive reserves" for the exclusive use of these collectors. Despite access to a free natural resource, price subsidies, and millions of dollars in technical and financial assistance, the collectors have yet to increase their market share. Their competition, national and international latex plantations and industrial processing facilities, produce the same product for a fraction of the cost.

- **Second,** production must occur at a scale that justifies capital investments and captures the efficiencies derived from economies of scale. However, increasing the scale of production may demand a large operation (rather than an SME), and may create the very pressures on the resource that the project hopes to mitigate.

- **Third**, reliability of production and quality control typically tend to be difficult to control within communities that do not have experience responding to the exigencies of markets, especially for export. This factor has plagued many conservation enterprises, especially current attempts to promote wood processing within community-based forestry projects.

- **Fourth,** local technical capacity is typically lacking. While there is a role for public sector technical assistance and capacity building, communities without *any* technical experience may not be self-sufficient within the relatively short time frames of many economic development projects (5 to 10 years).

- **Fifth**, because development assistance must be directed to specific individuals or entities, an equitable process must be conducted to select them. If the target communities lack the organization to participate in this process and make decisions that will be accepted and respected by a healthy majority of its members, social disruption can be readily caused.

Despite the difficulties associated with SMEs in the conservation context, we examined the potential of this development model for NTNR collectors in Bulgaria. Our primary test was the economic potential for SMEs. As indicated in the previous section, the supply chain for NTNRs from the National Parks is well developed, and observations of collectors, buyers, processors, and exporters indicate that excess capacity and competition exists at all levels. Within this context there may actually be future consolidation in the sector – not a conducive environment for new business. In addition, processors tend to work with a range of products, most at volumes far greater than those collected from the National Parks. The reason is that a constant flow of product is probably required to justify capital investments in processing. Working at higher volumes allows economies of scale, and processing a diversity of products hedges price and supply risks associated with any single product. Therefore, local community SMEs would need to contend with high efficiency requirements, issues of scale, and production diversity outside the realm of their traditional collection practices. Our general conclusion is that there is very limited economic opportunity associated with berries, herbs, medicinal plants, and mushrooms that can be exploited through SME development in the areas surrounding the parks.

TABLE 2

CONSTRAINTS FOR COLLECTOR COOPERATIVES AND LOCAL SMEs IN BULGARIA'S NATIONAL PARKS

Economic Factor	***Implication for SMEs at Collector Level***
Price competition throughout supply chain	• Collectors probably receive fair-market price for natural resources. • Prices at all points in supply chain generate very low margins. • Attempts by collectors to raise prices is constrained by larger market forces. • Elimination of middlemen will present technical and logistic challenges unfamiliar to collectors.
Substantial installed capacity	• Supply chain can readily absorb all current production – future consolidation within sector is a strong possibility. • Competition already exists to differentiate products and perform value-added processing – niches for SMEs are limited. • Increasing scale allows hedging against single product downturns (supply or price) – i.e. size matters.

Model 4: Concessions for Commercial Harvesting

Many countries offer natural resource management concessions for state-owned timber, minerals, fisheries, and NTNRs. Concessions are a means to maximize the economic efficiency of resource use by the private sector, and to facilitate private investment in resource management. In Bulgaria, the Concession Act covers the private management of a wide range of state properties and has been in place since 1995, with most recent revisions taking effect on January 1, 2002 (State Gazette #97, Nov. 28, 2000). Recently approved National Park Management Plans for Rila and Central Balkan permit the use of concessions for NTNR management.

A concession contract typically includes specific terms and conditions for the management of a natural resource. Chapter four of the Concession Act and the Medicinal Plants Act define these terms. A natural resource concession contract should include at least:

- Description of the basic components of a "management system" – this system includes protocols (procedures, regimes, and norms) for activities in the area, including periodic monitoring of the natural resource;
- Environmental guidelines for activities in the concession area;
- Social guidelines for relationships with local communities;
- Investment guidelines for local activities;
- Performance indicators by which the concession holder will be periodically evaluated, and by which contract renewal will be contingent;
- Penalties for not adhering to the concession agreement;
- Responsibilities of the state, including enforcement of the law and protection of the rights afforded the concession holder in the contract;
- Period of the concession and terms for renewal (under Concession Act the maximum term is 35 years, and renewal cannot exceed 50 years);
- Means of settling disputes between the concession holder and the state; and,
- Conditions under which the concession holder or the state may exit the contract.

The acquisition of a contract is typically accomplished using a general procedure proscribed by the law, with specific modifications pertaining to the state property in question. The first step is for the government to decide that a concession is appropriate. Chapter two of the Concession Act describes this process, and the necessity for a well-supported proposal that includes legal, financial-economic, social, and ecological analyses of the concession. If approved, the state either nominates an entity to receive the concession (most likely if there is only one qualified and interested party), or opens a tender.

A tender ensures that a concession generates the maximum public benefits possible. Concession bidders are typically requested to present credentials that establish their financial and technical ability to manage the concession, a plan for how the concession will be managed, and if necessary a financial offer for the privilege to manage the concession. Chapter three of the Concession Act outlines these general procedures, but specifics are not available until a tender committee is formed to administer a specific concession process. One important consideration in pursuing a concession is that the tender process can be lengthy if a committee is required to establish procedures for a state property (e.g. wild fruits, plants and mushrooms) with which they do not have prior experience.

Given the economics of NTNRs from Bulgaria's National Parks, the greatest opportunities to capture their value is to ensure their continued productivity and create opportunities for business to capitalize on the unique aspects of the wild products, such as certified organic markets. These two goals may be best accomplished via a concession system that promotes private sector resource stewardship and accountability for NTNR sourcing. By doing so, economic benefits may accrue to local communities by:

1) ensuring a stable source of employment in collection;
2) potentially increasing prices throughout the supply chain; and
3) requiring investment in local areas as a condition of concession acquisition.

We examine the implementation of a concession system in the National Parks in the next section of this report.

TABLE 3

ATTRIBUTES OF INTERVENTIONS

Intervention Option	Resource Impact	Local Economic Benefit	Park Management Requirements
Permit Reform	Improves regulatory control of harvest	Ensures long-term productivity of NTNRs, a valuable resource to local communities Facilitates organic certification of NTNRs	Command-and-control requires park rangers to delimit harvest areas, spot check collection activities Issue permits to collectors (most likely on major roads entering the parks where truck transport occurs). Law enforcement Ecosystem monitoring
Cooperatives/ Associations	None, except in the case where cooperative acquires a concession (see below).	Limited benefits from improved price bargaining or collective investment (see SMEs)	Not applicable
Small/Medium Enterprises	None	Potential benefits from value-added activities performed locally, but existing competition in sector probably too great	Not applicable
Concession System	Improves regulatory control of harvest	Ensures long-term productivity of NTNRs, a valuable resource to local communities Potential to require local investment in capacity-building or processing facilities in local communities Facilitates organic certification of NTNRs	Performance-based system requires periodic audits (use of indicators for ecosystem health, local investment outlined in concession contract) Law enforcement Ecosystem monitoring

4. Recommendations

We draw from our analysis to provide a series of recommendations for an NTNR management model that will ensure long-term productivity of the resource and generate local economic benefits. In particular, improved management of collection activities requires improvements in the permit system and could benefit from the introduction of a concession system. Both interventions serve to maintain current local access to an economic activity (collection) and could stimulate external investment in the resource.

Observations and reports from the National Park staff and the BCEG NTNR Team indicate that permitting and enforcement are inadequate to properly manage commercially collected resources. If better control is necessary to ensure that the harvest of NTNRs from the park does not cause ecological harm, several weaknesses in the current system must be addressed.

- ***Elimination of permit loopholes**:* All collection should be permitted, regardless of its end use. Permit-free personal collection limits (10 Kg/day in the case of vaccinium sp.) account for the majority of commercial collection. Therefore, there is no motivation to acquire commercial collection permits.

- ***Complexity of acquisition of permits**:* Permits can be simplified so that they require no paperwork. They can be as simple as a stamp or a coupon. Collectors can acquire them at central points of entry into parks during morning hours (collectors should not be allowed to acquire permits *after* collection). The permit should be valid until the resource is collected.

- ***Lack of source control**:* Permits can be color coded to identify the area where collection is allowed. All permits should allow the same volume of collection, consistent with a typical day's collection by one individual (e.g. 10 kg). The number of permits issued controls the overall harvest intensity for a specific area. Enforcement is made easy since rangers can "spot check" collectors inside the park to verify that they have a permit for the area in which they are collecting, or upon exit from the park to ensure volumes do not exceed permit limits. In the case of organic markets, it will also become necessary for exporters to ensure that their product is collected only in those permitted areas with organic certification.

- ***Purpose and Suitability of Permit Fees**:* Since the objective of allowing collection inside the park is to provide local economic benefit, and park management is effectively intended as a subsidy to local collectors, charging fees for permits is counter-productive. Furthermore, the contribution to park budgets from fee collection is insignificant and seems only to generate negative sentiment towards government. If it is determined that fee collection is desirable, it should be simple to quantify and publish the cost of park administration and the revenues generated from fees that are put towards that cost. This information should be posted at points of permit acquisition as well as be published in the State Gazette.

A concession system can be developed to complement improved permitting. Concessions for specific areas of the National Parks can be offered to bidders that are technically and financially capable of proper resource stewardship. A concession system could address several key issues in NTNR management.

- ***Performance-based collection management***

Concessions can enhance resource stewardship by shifting management from a strict "command-and-control" system to a "performance-based" system. Performance-based systems present norms of ecosystem health to be met in the manner deemed most effective by the resource users themselves. This allows more flexibility, creativity, and theoretically more efficiency in achieving management goals. A concession contract may include performance norms, with specific indicators, that are measured periodically to ensure that the concession holder is practicing good stewardship of the resource.

- ***Stimulate local investment***

A concession tender may include criteria such as technical and financial ability to properly manage a concession, but may also request a proposal for local investment in capacity building or processing. By making investment a competitive criterion for concession acquisition, it is more likely that the best possible investments (in terms of creativity, practicality, and size) will be presented. This may form an important component to local economic benefits accrued from NTNR collectors in the National Parks.

- ***Facilitate organic certification***

Concessions can facilitate supply-chain management necessary for organic certification (see box). By explicitly creating accountability for sourcing and resource management, the requirements for organic certification are partially met. If the organic market is accessed, price increases could be enjoyed throughout the supply chain, including local collectors. In addition, some local investments may be necessary to process NTNRs at the collection site to satisfy certification requirements.

Box 2 : Key Elements of Organic Certification of Wild Products

Organic certification requires that harvest of the product not damage the resource base and that the product be free of contamination from pesticides and other synthesized compounds, heavy metals, radioactivity, and of course meet conventional sanitary conditions. In order to maintain organic standards, none of these contaminants may be present in the area of harvest, as well as processing, transport and storage sites. In addition, there must be a means of verifying that the certified product is not contaminated by, or mixed with, non-certified products. Exporters must use a chain-of-custody system that involves coding and labeling of products at the time they are harvested and remains with the product until it reaches the consumer. European certification of this system is conducted by independent entities (e.g. Skal, EcoCert) that verify the implementation of Council Regulation (EEC) 2092/91, two key elements of which we cite here.

Council Regulation (EEC) No 2092/91

Annex I, Point 4

The collection of edible plants and parts thereof, growing naturally in natural areas, forests and agricultural areas, is considered an organic production method provided that:

- **Those areas have received no treatments with products other than those referred to in Annex II [organic treatment products] for a period of three years before the collection.**
- **The collection does not affect the stability of the natural habitat or the maintenance of the species in the collection area.**

Annex II, Point 2

When the inspection arrangements are first implemented, the producer, even when his activity is limited to the collection of wild plants, and the inspection body must draw up:

- **A full description of the unit, showing the storage and production premises and land parcels, and/or collection areas and where applicable, premises where certain processing and/or packaging operations take place.**

Two major issues must be mentioned in the context of improving collection management. First, both an improved permit system and a concession system will require the cooperation of the forest enterprises, and they must enforce the law equally. Without enforcement, there is no purpose in improving the regulatory system. However, an improved regulatory system can facilitate enforcement by making it easier to identify violators and by expanding responsibility for good resource stewardship to concession holders. In both cases, we will need to examine the precise deployment needs for park staff. Second, public information is key to the long-term success of efforts to improve management for the benefit of local communities. An information campaign should include an estimate of the economic benefits accruing to local collectors and their communities, and the activities and costs of park management required to generate these local benefits.

TABLE 4

ATTRIBUTES OF REGULATORY INTERVENTIONS

	Concession	***Permits***
Advantages	Reduces cost to public sector May encourage local investment Performance based Potential for organic certification	Ensures year-round control Potential for organic certification
Disadvantages	Does not ensure year-round control	Enforcement intensive/Command-and-control system
When it works	Mgmt cost < financial benefits Private sector able to manage resource Local communities respect enforcers Enforcement is conducted Local communities respect concession Proper ecological guidelines provided	Local communities respect enforcers Permits are easy to use Based on ecological guidelines Enforcement is conducted
Examples of Performance Indicators	Status of resource after harvest Presence of local investment	Production accounted for by permits Status of resource after harvest

5. Conclusions and Next Steps

In the coming months the BCEG Project has the mandate and opportunity to advise the Government of Bulgaria on the management of NTNRs in the Rila and Central Balkan National Parks. The conclusions of this report are that **the greatest potential for stimulating economic development in the areas surrounding the national parks are:**

1) **to ensure NTNR productivity; and,**
2) **to examine the potential for commercial organic certification of those resources.**

Other direct interventions by the BCEG project, such as the development of cooperatives or SMEs are not appropriate for this context since there already exists substantial competition and commercial capacity throughout the supply chain. Chances are limited that new cooperatives or SMEs with public sector financing or technical assistance will meaningfully benefit local NTNR collectors.

NTNR management in the National Parks must be improved. We propose two strategies for affecting such change. The first strategy is to improve the current system of permitting. The second is to complement permits with a concession system that places resource management responsibility in the hands of the private sector, with public sector oversight. These systems should ensure that the benefits of resource flows from the parks continue to flow to local communities by protecting their natural ecology; **AND** may set the stage for private investors to capitalize on more orderly harvesting and resource management required by organic certification. Neither strategy will function, however, without a commitment by the relevant institutions to enforce the laws that govern resource management in and around the national parks.

In order to prepare to present this recommendation, the following steps should be taken:

- Provide this report as part of the situation analysis and resource assessment, to pilot area NTNR interest groups, National Parks and the MOEW;
- Develop a NTNR model of potential (and real) economic contributions arising from continued personal and public access to NTNRs within the national parks;
- Refine estimates of the business potential for concession holders, including the costs and returns from organic products;
- Develop a proposal to government, including economic, legal, social, and ecological justification for changing current regulations and opening a concession process.
- Provide technical assistance to government in promulgating new regulations;
- Provide technical assistance to government in conducting concession process;
- Provide financial and technical assistance for the organic certification of plants and mushrooms from National Parks.

Scope of Work

Business/Enterprise Development Specialist

Overview

This scope of work is part of a 60-day level of effort described in support of the Biodiversity Conservation and Economic Growth Project in Bulgaria – a project under the USAID Bulgaria Program and contracted through the BIOFOR Task Order of USAID.

One emphasis of this Project, supported by a series of short-term technical assignments, is oriented towards economic growth in rural, pilot areas adjacent to two Bulgarian National Parks. The tool for economic growth is the regulated access and sustainable management of commercially viable natural resources collected from within the National Parks. These resources already have demonstrated market value and are traded both internationally and domestically. The Project aims at the use and development of small and medium enterprise (SME) models as tools for improved resource management, local business development and income generation.

The position requires an essential combination of previous non-timber natural resources management exposure, as well as direct experience in brokering and/or developing business opportunities that promote their sustainable use.

Background

National Park management plans (completed during 2000) set the stage for an ambitious program of non-timber natural resources management (NTNRM) and community-based enterprise development. The NTNRM model being promoted by two national parks, and their management plans, is based on the principles of collaborative management of key natural resources found within the Parks.

There is a long history of personal and commercial non-timber natural resource collection from within the Park, as well as the forest enterprise units surrounding the Park. There is increasing evidence however, that un-regulated resource collection, led by strong market demand and a generally poor economy, is resulting in loss and deterioration of populations of medicinal plants, herbs, and wild fruits. Significant quantities of these wild forest and mountain pasture resources are being harvested, making Bulgaria one of the most significant exporters of non-timber natural resources (NTNRs) in the world. There is substantial information about their biology, as well as the resources that are exported. There is however, often little value added to these wild resources, and many leave the country in dry bulk form. And if value is added, there is seldom little benefit to communities and groups of resource collectors.

Attempts were made during the development of management plans for Central Balkan and Rila National Parks to quantify and qualify non-timber natural resource collection. Few collectors actually distinguish between the resources collected from within the Park, or outside its boundaries, making it difficult to establish the quantities of resources taken from the Park. Field data suggests however, that the amount of medicinal plants, mushrooms, herbs, and wild fruits taken from the Park and its surroundings can be measured in tens of tons.

Collection is characterized by both commercial collectors, as well as personal collection. Collection groups vary by area, but generally speaking, most commercially collected quantities of fruits and medicinal plants are collected by well-organized labor groups - mostly Roma In the southern Rila National Park and Rhodopes, much of the collection of NTNRs is conducted by Pomaks – traditional Bulgarian Muslim groups. And increasingly, Bulgaria's rural communities are turning to NTNR collection to supplement meager rural incomes.

Existing collection techniques and large-scale commercial collection groups often result in damage to the resource, as well as the general environment. Unregulated use of fires, poor accommodation and sanitation, and rapacious collection techniques are to blame. Collection groups of 200-300 people in one area are not unusual during a seasonal flush of wild resources.

Collection of most "NTNRs "is regulated by the new Medicinal Plants Act of 1999. Commercial quantities are regulated by licenses given by representatives of the Ministry of Environment and Waters at regional levels. Unfortunately, amounts allocated for personal daily collection provide little incentive for adequate natural resource management. It is not unusual for personal collection limits of 10 kg per person for many wild resources, meaning that a family of 4 could easily collect 40 kg of NTNR without requiring a license. And it is not unusual for scores of collectors to be found collecting NTNRs for "personal use", when in fact, these amounts are being harvested daily and sold to commercial markets.

Most commercial collection permits (issued by the National Park Directorates) define the resource(s) to be collected, amounts, and indicate the validity of permits. Permit fees accrue to the State, and are allocated to the National Environmental Protection Fund. But **no** permitting fees are connected with source/origin of the resources and the budgets needed to monitor and manage them. Virtually all collection is irregularly monitored, and both commercial and personal collection is now increasingly destined for non-personal uses. Large-scale collection patterns are dictated significantly by road locations. Numerous all-weather and forest tracks afford easy access to Parks and even high mountain areas during the summer. More and more commercial quantities of NTNRs are being supplied to foreign registered firms, and are destined for foreign processors and foreign markets.

At present, very little is known by the Project about market demand at any levels. A tight network of Bulgarian commercial enterprises that control markets and market prices reputedly drives NTNR collection. Accurate statistics for quantities processed, and quantities of NTNRs exported, are reputedly inaccurate.

Recent Developments

With the establishment of new national park authorities early in 1999, the management and monitoring of NTNRs has largely improved. With the assistance of the Institute of Botany, Bulgarian Academy of Sciences, populations of rare, endemic and endangered populations of medicinal plants have been identified and are being mapped. In addition, the Parks have been able to identify and describe those resources with prevailing commercial value. Commercially viable collection areas have been identified, but there has been no attempt yet to determine and monitor production/yields for specific resources within the Parks, on an annual or seasonal basis.

Both National Parks are eager to institute a program of improve resource management and monitoring, in conjunction with surrounding communities. Both parks recognize that they have inadequate staff and resources to rely on law enforcement alone, and until there are improvements to legislation, there is little chance of making existing laws effective tools in the courts.

Towards this end, both national parks have selected areas in which to pilot programs of collaborative NTNR management. Each Park has allocated technical expertise from their Directorates to supervise the pilot program, as well as assigning regional section heads to coordinate activities locally. Pilot areas were selected based on prevailing natural resource collection access, community profiles, and the role that natural resource collection plays in the community livelihood and economy.

The BCEG Project has appointed two technical area specialists – PMU staff Kamelia Georgieva is supervising this pilot activity on behalf of the Project's eco-enterprise component. She is assisted by Chevdar Gusev, a botanist with significant experience and excellent familiarity with patterns and practices in NTNR collection from the national parks, particularly Central Balkan and Rila. Mr. Gusev is a member of the Project's working group, and technical advisor to the Project.

The Pilot program is characterized by **5 Phases:**

Phase 1 is aimed at forming a national-level working group to develop/refine the Pilot program strategy, and to develop the tools and methodology for focused information collection. Working group formation has already commenced, with participation from national and park levels.

Phase 2 - devoted to information collection and analysis regarding pilot areas, communities, markets, technologies, and a "supply chain" analysis. This phase is already being implemented.

Phase 3 - devoted to development of specific, local pilot area strategies and action plans that focus on the four key elements of select, commercial resources:

- Identification of local entrepreneurs who offer strategic relationships between collectors, the National Parks, and the market place;
- Identification of business development and investment opportunities;
- Development of agreements/contracts as tools to govern relationships with Parks and collectors;
- Identification of opportunities to "add value" to these commodities, and to identify domestic and international markets;

Phase 4 - implementation and monitoring of the action (harvest seasons 2001/2002).

Phase 5 – lessons learned and implications for organizational, policy/legislation, investment, and enterprise development issues (late summer/fall 2002)

In order to strengthen the pilot strategy, the BCEG Project is requesting the services of an international short-term consultant to help at various times during these phases. An international STTA is immediately needed to participate in finalizing Phase 2. As a product of their participation in this phase, the consultant will develop follow-on actions and additional terms of reference for his/her return.

TASKS

1. Provide a review and analysis of collaborative management of non-timber natural resources literature, the Project's pilot program strategy, and terms of reference of the working group, with a view towards strengthening both, prior to arrival.

2. Review the data collection tools and methodologies prior to arrival.
3. Visit the target areas, and familiarize one-self with the three major components of the pilot areas – the resource base/and associated park pilot NTNR monitoring program, the target communities and their roles in local resource use and husbandry, and the markets/pricing strategy.
4. Assist the working group with the secondary analysis of primary data collected. Assist the working group to develop an appropriate pilot area strategy and action plan for specific NTNRs, using both supply chain information, national statistical export information, and local enterprise capacity, etc.
5. Conduct appropriate pilot area meetings with park staff, local enterprises, local government representatives, and collection groups to discuss the collaborative management strategy and its components.
6. Assist the BCEG Project to refine pilot area action plans based on community discussions, and information collection.
7. Assist the Working group and Park teams to establish benchmarks and economic growth indicators at local and national level that will be monitored during implementation;
8. Meet with private sector, commercial associations, etc. and donor-funded enterprise development projects and programs to:
   - Update USAID-related projects with potential links to Park pilot projects;
   - Investigate commercial links and incentives applicable to the pilot sites;
9. Brief and debrief with USAID;
10. Assist the BCEG Project to develop an action plan and timetable for international follow-up and technical assistance.

DELIVERABLES

1. Revisions/additions to the Project's pilot program strategy, composition of the working group, and its TOR.
2. Conduct of appropriate meetings and workshops.
3. TOR for additional STTA, related to a) ecological monitoring; b) social organization and collaborative management agreements between collection parties and national parks; c) permitting system; d) market analysis and market opportunities; e) enterprise investment and development.
4. Draft final report, prior to departure
5. Final report, within one month of completing the assignment, based on comments from the BCEG team and working group.

TIMETABLE

1. Working Group orientation/discussions and field data analysis	2 days
2. Field trips and pilot area meetings	6 days
3. Sofia-based enterprise and marketing meetings	2 days
4. Report development	2 days
5. travel	2 days
Total	**14 days**

Assignment

July 29 – August 11, 2001

Case Study of the Maya Biosphere Reserve[2]

Biosphere Reserves integrate economic activity directly into conservation management, and in some cases involve concession systems. In 1990, the Government of Guatemala created the Maya Biosphere Reserve (MBR), an area that spans 2.1 million hectares of tropical forest (nearly 15 percent of the country's landmass). The MBR is zoned into three major land use areas.

- Core Zones -- where forest protection is most strict and only benign activities are permitted such as ecotourism and scientific research.
- Multiple-Use Zone (MUZ)– the largest portion of the Reserve, where extractive activities are permitted, including logging and the harvest of NTNRs that follow government approved management plans. Human settlements are also permitted in clearly defined "community management units."
- Buffer Zone -- a 15-kilometer swath of land bounding the southern border of the MUZ and Core Zones where agricultural and other land use activities are permitted and private property can be acquired.

Concessions serve to organize economic activities in the MUZ and ensure that they conform to management plan objectives for the Biosphere Reserve. They have transformed the forest from an effectively open-access resource to one that is carefully managed and supervised. There are 14 concessions granted to local communities and two granted to industrial firms, each for 25 years, covering an area of approximately 500,000 hectares. Concessions are intended to generate financial returns to concession holders, stimulate local economic development, and create local constituencies for the Maya Biosphere Reserve.

Since the formation of the Maya Biosphere Reserve, the conservation outcome has been positive; forest conversion to agriculture and pasture outside the reserve is ubiquitous, while forest cover remains across most of the reserve. By most accounts this can be explained by the presence of community concessions within the reserve and the sense of ownership and accountability they create for the forest resources. The economic outcomes have also been favorable to the extent that the resource base has maintained its productivity under concession management, and communities have gained assured access to the resources.

However, over the course of the Maya Biosphere's history, communities have been provided a substantial injection of funding from USAID and other sources of international aid to organize production (e.g. acquire concessions, design management plans) and to develop small enterprises to collect and process NTNRs and timber. In retrospect, these investments assisted greatly in building the organizational capacity of communities, but it placed too great an emphasis on the natural resource's ability to stimulate long-term economic development.

In reality, unprocessed NTNRs offer prices that are steadily declining in real terms (over the last ten years, annual real price appreciation for NTNRs has been between 0 and –10 percent). Value-added processing, the ultimate goal of small enterprise development, has proven to demand far greater technical and organizational capacity than the majority of communities have gained over the last 11 years of external assistance. Most communities are unable to

[2] This case study is based on a detailed report by Jared Hardner and Sharon Flynn written in 2000 and to be presented to USAID and other project donors and implementers in November, 2001.

meet market demands for quality, unable to compete on price, unable to reliably deliver supply to clients willing to invest in the communities' long-term prospects as providers of "ecological" or "green" products, and unable to administer small businesses without assistance from NGOs. Activities, ranging from cooperatives to collect and process decorative forest plants for export (*xate*), to small portable sawmills have been tried. To date, only one community concession has developed sufficient capacity to run a self-sustaining business. In many cases, the only source of revenue from concessions comes from sub-contracting industrial loggers to remove and process timber from their forest concessions. By most accounts, the experience of small conservation enterprise development has been unproductive, and very costly.

There are a couple of key lessons learned from the experience in Guatemala.

First, resource use concessions can make a substantial contribution to conservation management if concession holders are held responsible for the condition of resources. Despite economic disappointments, concessions holders have been effective in managing their forests with conservation objectives in mind.

Second, while local economic development and constituency building are critical, there may be means to accomplish these objectives without placing unwarranted confidence in the ability of local communities to become competitive economic players, even with intensive external assistance. Project donors may have created a long-term dependency for foreign aid, rather than sustainable small enterprise development -- at a cost potentially greater than the net present value of concession returns to communities over the long run. Addressing this concern, international donors are considering the possibility of simply paying communities to provide conservation management rather than continue to develop small enterprises.

Field Trip and Sofia Meetings, 31 July – 8 August 2001

Raina Chardalova Chavdar Gussev,	Tel. 940 66 14, 940 6554,22 Maria Luiza Blvd. Tel.979 21 53, 048 77 51 53 Akademik Bounchev Str., block 23, Sofia 1113	NNPS, MOEW BAS, Botany Institute, BCEG Project consultant
Marin Kostov - Head of Klisura Park Section and Gergana Staneva - Central Balkan National Park botany expert	4341 Klisura tel.03137/ 2052, fax: 03137/ 2229 3 Bodra smiana Str., Gabrovo 5300, tel/fax 066/61302	Klisura park section Central Balkan NP Directorate
Shefket Bobev – buyer and his collector group	03136/ 2321, 2118 4340 Rozino Village	buyer
Igor Tsurkanu – Executive Director e-mail: biokarlovo@mail.orbitel.bg	Tel/fax 335/ 20 38, 83 65 Mob. 048 99 77 22 Karlovo 4300, 47 Ivan Vazov Str	Bio Bulgaria Cooperative
Stoicho Stoichev- buyer and his collector group	Tel. 031397 / 363, 415 4339 Hristo Danovo village	buyer
Peter Kamzamalov – Manager of Yoka – Mob. 048 941 987 Andrei Nesterev – director of Yoka	Tel. 3146/2265, 2272 FAX: 3146/2070 Kyrtovo Konare	Yoka Ltd., Kurtovo Konare – Canning Company
Hristina Subeva – manager – 088 30 72 02; e-mail view@mbox.digsis.bg Ilia Nemski (TBC)	Tel. 058/ 20 374 Fax: 058/ 28 334 9300 Dobritch, Regional universal market “Dryzba 2”	Nery & Aziago Ltd., Pazardjik exporters of wild products
Ilia Nestorov – Manager	tel./ 34/ 25376; fax 34/ 292 63 4415 Zvanichevo	Real Konserven Ltd. Zvunichevo – canning company

Roumen Kolchagov, and Filip Zaykov – Section Head of Yakoruda	Tel. 048 777 284 Tel. 048 862 104, 07442/2298 1 Nikola Vardev Str., 2790 Yakoryda	Park expert – Rila National park Yakoruda park section
Salih Sholiuf– buyer and his collector group	048 778 418 Belitsa, 2 Osma Str.	herb processor
Husein Byzgov – broker	048 876 201 Cherna Mesta Village	Broker
Ibrahim Karafais - broker	048 772 696 Cherna Mesta Village	Broker
Georgi and Lilly Iadkovi	TEL 074401/ 464 048 834 091; 048 994 085 Gorno Draglishte Village	herb processors, buyers
Iusuf Bunsef – Mayor	Cherna Mesta village	Mayor of Cherna Mesta village
Angel Sheitanov – private businessman	tel./fax 0318 / 827 71, mob. 048 983 539, Benkovski village, Plovdiv region	"Vessela Sheitanova" firm for herbs commerce;
Marlena Stoyanovska	Tel. 46 53 31, 46 40 67 Fax: 944 50 11 e-mail: pfrukt@techno-link.com 1 prof. Milko BiTchev Str., Sofia 1504	Planta Fruct Export Ltd.
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Appendix 4.

Presentation: Renewable Resource Management and Economic Development Options for National Parks in Bulgaria

ARD Bulgaria
Biodiversity Conservation &
Economic Growth
Project
Sponsored by
USAID and the Government of Bulgaria

Renewable Resource Management and Economic Development Options for National Parks in Bulgaria

Jared Hardner, Consultant

August 10, 2001

Objectives

- Improve renewable resource management in National Parks (berries, herbs, mushrooms)
- Stimulate economic development in regions surrounding the parks

Observations

- Heavy competition and excess capacity throughout supply chain
  - Efficient pricing
  - Ripe for consolidation
- Product prices and volumes volatile
  - Scale is critical for market hedging

Blueberry Supply Chain

	Sale Price (leva)	*Revenue Margin*
Collector	1.8	1.8
Buyer	1.9	0.1
Processor	2.5	0.5
Exporter	2.8	0.3

Analysis

- Economic benefits maximized when:
  - Ecologically sustainable access is ensured
  - Organization of production allows for organic certification.
- SMEs not appropriate for this context
  - Sector consolidation
  - Scale
  - Sector well developed

Proposal

- Ecological and economic objectives can be met by implementing two changes to resource management in national parks:
  - Improved permitting
    - Simplicity
    - Area and volume based
    - Chain of custody
    - Fee reform
  - Concession system
    - Performance bonded
    - Competitive allocation
      - Efficient fees
      - Investment requirements

Next Steps

- Complete ecological impact and risk assessment
- Refine estimates of business potential of concessions, including costs and returns from organic products
- Develop proposal to government, including economic, legal, social, and ecological justification for changing current management
- Provide financial/technical assistance for organic certification of products from National Parks